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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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BANNER & WITCOFF, LTD.  
TEN SOUTH WACKER DRIVE  
SUITE 3000  
CHICAGO, IL 60606

EXAMINER

FONTAINE, MONICA A

ART UNIT PAPER NUMBER

1732

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/863,928

Applicant(s)

WANG ET AL.

Examiner

Monica A Fontaine

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 33-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 33-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eastman et al. (U.S. Patent 4,465,702), in view of Rose et al. (U.S. Patent 6,284,359). Regarding Claim 1, Eastman et al., hereafter "Eastman," show that it is known to carry out a process for preparing a cold-water extruded starch product that is substantially completely soluble [and] has a solubility of greater than 90% in water at 25°C (Abstract; Column 7, lines 32-34), the process comprising providing a starch (Column 6, lines 55-61); continuously forming the starch in an apparatus having at least first and second zones, said first zone being upstream from said second zone, the temperature in said first zone being insufficient to gelatinize said starch and the temperature in said second zone being sufficient to gelatinize said starch (Column 9, lines 50-57; Column 11, lines 35-40), said starch being processed in the presence of total moisture in the apparatus no greater than 25% by weight of said starch (Column 9, lines 35-37, 63-64). Eastman does not give a specific starch, nor does he specify an extruder as his continuous forming apparatus. Rose et al., hereafter "Rose," show that it is known to carry out a method for preparing a cold water soluble extruded starch product (Abstract), including providing a hydroxyalkyl starch, said starch being derivatized with a hydroxyalkyl substituent having from 2

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to 6 carbon atoms (Column 4, lines 6-12), extruding said starch in an extruder, said extruder having a barrel, a die and at least one rotating shaft, said barrel having at least first and second zones, said first zone being upstream from said second zone, the temperature in said first zone being insufficient to gelatinize said starch, and the temperature in said second zone being sufficient to gelatinize said starch (Column 4, lines 33-56, 62-67; Column 5, lines 1-10), and controlling the rotational speed of said shaft to impart a specific mechanical energy to said starch sufficient to result in a soluble extruded starch product that is capable of extrusion through said die at said rotational speed (Column 5, lines 11-47, 62-67; Column 6, lines 1-16). Rose and Eastman are combinable because they are concerned with a similar technical field, namely, continuous processes which form soluble starch products. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Rose's specific starch and extrusion process as elements in Eastman's continuous process of forming cold-water soluble starch products in order to obtain a product with specific starch characteristics and utilize the current extrusion technology.

Regarding Claim 2, Eastman shows the process as claimed as discussed in the rejection of Claim 1 above, including a process wherein the moisture in said barrel not exceeding 22.5% by weight of said starch (Column 9, lines 35-37, 63-64; ; Column 14, lines 15, 49-50), meeting applicant's claim.

Regarding Claim 3, Eastman shows the process as claimed as discussed in the rejection of Claim 1 above, including a process wherein the moisture in said barrel not exceeding 20% by weight of said starch (Column 9, lines 35-37, 63-64; ; Column 14, lines 15, 49-50), meeting applicant's claim.

Regarding Claim 4, Eastman shows the process as claimed as discussed in the rejection of Claim 1 above, including a process wherein the moisture in said barrel not exceeding 17.5% by weight of said starch (Column 9, lines 35-37, 63-64; ; Column 14, lines 15, 49-50), meeting applicant's claim.

Regarding Claim 5, Eastman shows the process as claimed as discussed in the rejection of Claim 1 above, including a process further comprising the step of drying the formed starch product to a moisture content below about 15% to form a dried product (Column 14, lines 60-62), meeting applicant's claim.

Regarding Claim 6, Eastman shows the process as claimed as discussed in the rejection of Claims 1 and 5 above, including a process wherein said starch product [is] dried to a moisture content between about 9% and about 12% (Column 14, lines 60-62), meeting applicant's claim.

Regarding Claim 7, Eastman shows the process as claimed as discussed in the rejection of Claims 1, 5, and 6 above, but does not show a step of grinding the dried product. Rose shows that it is known to carry out a method of forming a cold water soluble product, including the step of cutting the extrudate to a desired length (Column 6, lines 10-11; It is noted that this would suggest a grinding process, if the desired length was determined to be that of a small particle.). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to include Rose's cutting (i.e. grinding) step in Eastman's process in order to obtain a starch product of a predetermined length.

Regarding Claim 33, Eastman shows a process for preparing a coated food product (Abstract), comprising providing a food substrate (Column 1, lines 14-35); providing a seasoning adherence solution (Column 1, lines 36-46); applying said seasoning solution to said food

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product in a manner effective to cause seasoning in said solution to adhere to said food substrate, said seasoning adherence solution having been prepared by mixing water, an extruded starch product, and a seasoning to form said solution (Column 1, lines 36-62), said product having been formed by a process comprising providing a starch (Column 6, lines 55-61); continuously forming the starch in an apparatus having at least first and second zones, said first zone being upstream from said second zone, the temperature in said first zone being insufficient to gelatinize said starch and the temperature in said second zone being sufficient to gelatinize said starch (Column 9, lines 50-57; Column 11, lines 35-40), said starch being processed in the presence of total moisture in the apparatus no greater than 25% by weight of said starch (Column 9, lines 35-37, 63-64), said process including the step of controlling the continuous apparatus to result in a soluble extruded starch product that has a solubility greater than 90% in water at 25°C (Column 7, lines 32-34; Table II, Example 2). Eastman does not give a specific starch, nor does he specify an extruder as his continuous forming apparatus. Rose shows that it is known to carry out a method for preparing a cold water soluble extruded starch product (Abstract), including providing a hydroxyalkyl starch, said starch being derivatized with a hydroxyalkyl substituent having from 2 to 6 carbon atoms (Column 4, lines 6-12), extruding said starch in an extruder, said extruder having a barrel, a die and at least one rotating shaft, said barrel having at least first and second zones, said first zone being upstream from said second zone, the temperature in said first zone being insufficient to gelatinize said starch, and the temperature in said second zone being sufficient to gelatinize said starch (Column 4, lines 33-56, 62-67; Column 5, lines 1-10), and controlling the rotational speed of said shaft to impart a specific mechanical energy to said starch sufficient to result in a soluble extruded starch product that is capable of extrusion through

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said die at said rotational speed (Column 5, lines 11-47, 62-67; Column 6, lines 1-16). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Rose's specific starch and extrusion process as elements in Eastman's continuous process of forming cold-water soluble starch products in order to obtain a product with specific starch characteristics and utilize the current extrusion technology.

Regarding Claim 34, Eastman shows the process as claimed as discussed in the rejection of Claim 33 above, including a process wherein the moisture in said barrel not exceeding 22.5% by weight of said starch (Column 9, lines 35-37, 63-64; ; Column 14, lines 15, 49-50), meeting applicant's claim.

Regarding Claim 35, Eastman shows the process as claimed as discussed in the rejection of Claim 33 above, including a process wherein the moisture in said barrel not exceeding 20% by weight of said starch (Column 9, lines 35-37, 63-64; ; Column 14, lines 15, 49-50), meeting applicant's claim.

Regarding Claim 36, Eastman shows the process as claimed as discussed in the rejection of Claim 33 above, including a process wherein the moisture in said barrel not exceeding 17.5% by weight of said starch (Column 9, lines 35-37, 63-64; ; Column 14, lines 15, 49-50), meeting applicant's claim.

Claims 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eastman and Rose, as applied to claims 1 and 33, respectively, above, further in view of Hansen et al. (U.S. Patent 2,464,081).

Regarding Claim 37, Eastman shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show a cold water solubility of at least 99%. Hansen et al., hereafter "Hansen," show that it is known to carry out a continuous process of making a cold water soluble starch product, said starch having a solubility of at least 99% in water at 25°C (Figure 1; Column 5, lines 53-63). Hansen and Eastman are combinable because they are concerned with a similar technical field, namely, continuous processes which form soluble starch products. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to require Hansen's specific starch solubility during Eastman's continuous process of forming cold-water soluble starch products in order to obtain a product which satisfies predetermined solubility specifications.

Regarding Claim 38, Eastman shows the process as claimed as discussed in the rejection of Claim 33 above, but he does not show a cold water solubility of at least 99%. Hansen shows that it is known to carry out a continuous process of making a cold water soluble starch product, said starch having a solubility of at least 99% in water at 25°C (Figure 1; Column 5, lines 53-63). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to require Hansen's specific starch solubility during Eastman's continuous process of forming cold-water soluble starch products in order to obtain a product which satisfies predetermined solubility specifications.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed.



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Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 of copending Application No. 10/687498. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to form a film from a starch solution, as claimed in the '498 application, during the instantly-claimed process in order to form flat consumer products.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Response to Arguments***

Applicant's arguments, see the paper filed 22 November 2004, with respect to the rejection(s) of claim(s) 1-7 and 33-38 under van Lengerich and Rose have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Eastman and Rose.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A Fontaine whose telephone number is 571-272-1198.

The examiner can normally be reached on Monday-Friday 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Colaianne can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Maf

January 27, 2005



**MICHAEL P. COLAIANNI  
SUPERVISORY PATENT EXAMINER**